Commercial Real Estate and Central Bank Independence:

Are you a breakfast champion?

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Today's Agenda

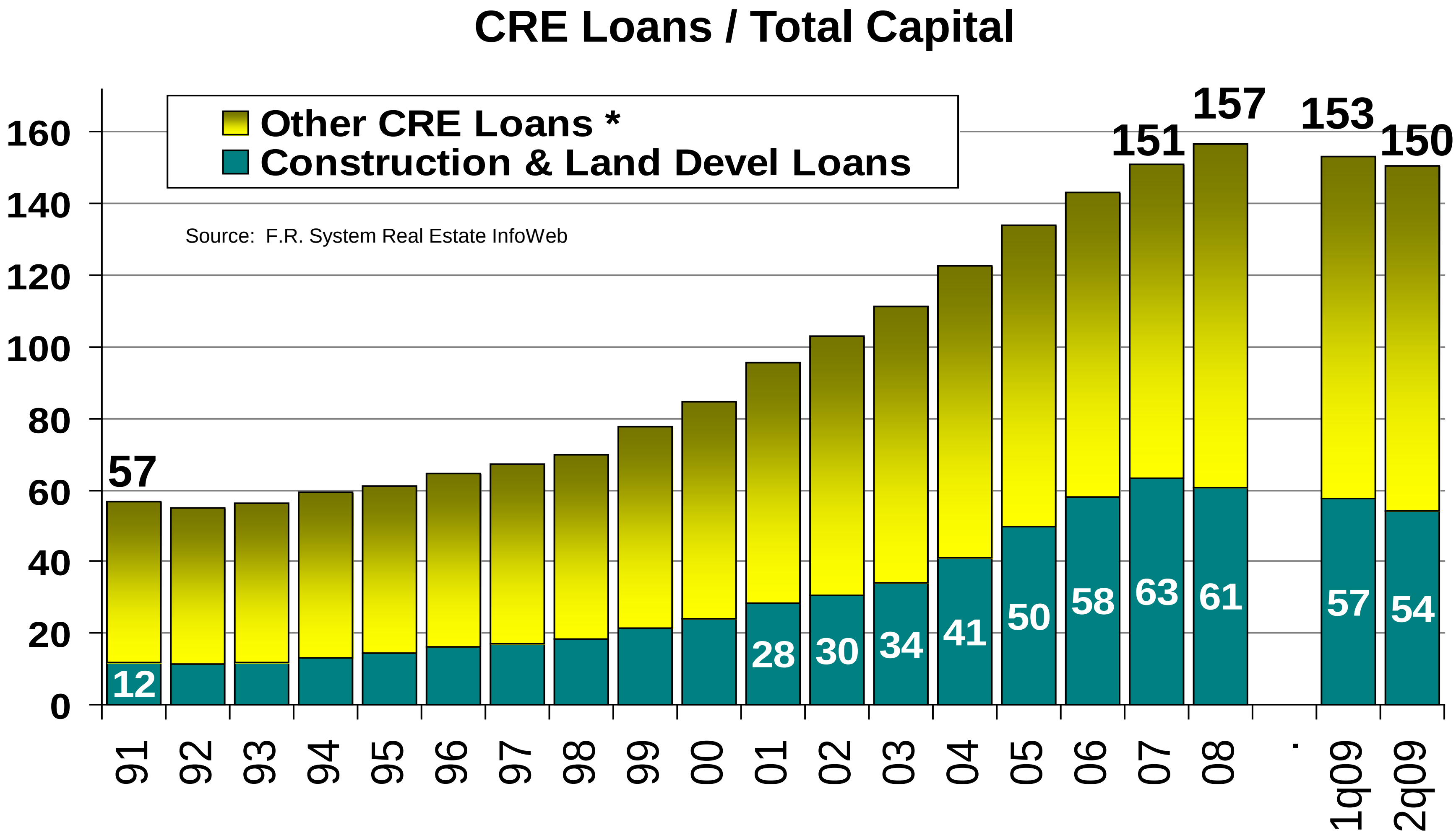
Item 1: Commercial real estate

- What's the problem?
  - A summary of commercial real estate "concentration" trends
- Why is it a problem?
  - A look at credit quality and price trends
- What's next?
  - A summary of what analysts are worried about and…
  - Do CRE losses have a large potential to create a wider problem?

Item 2: Why you care about central bank independence

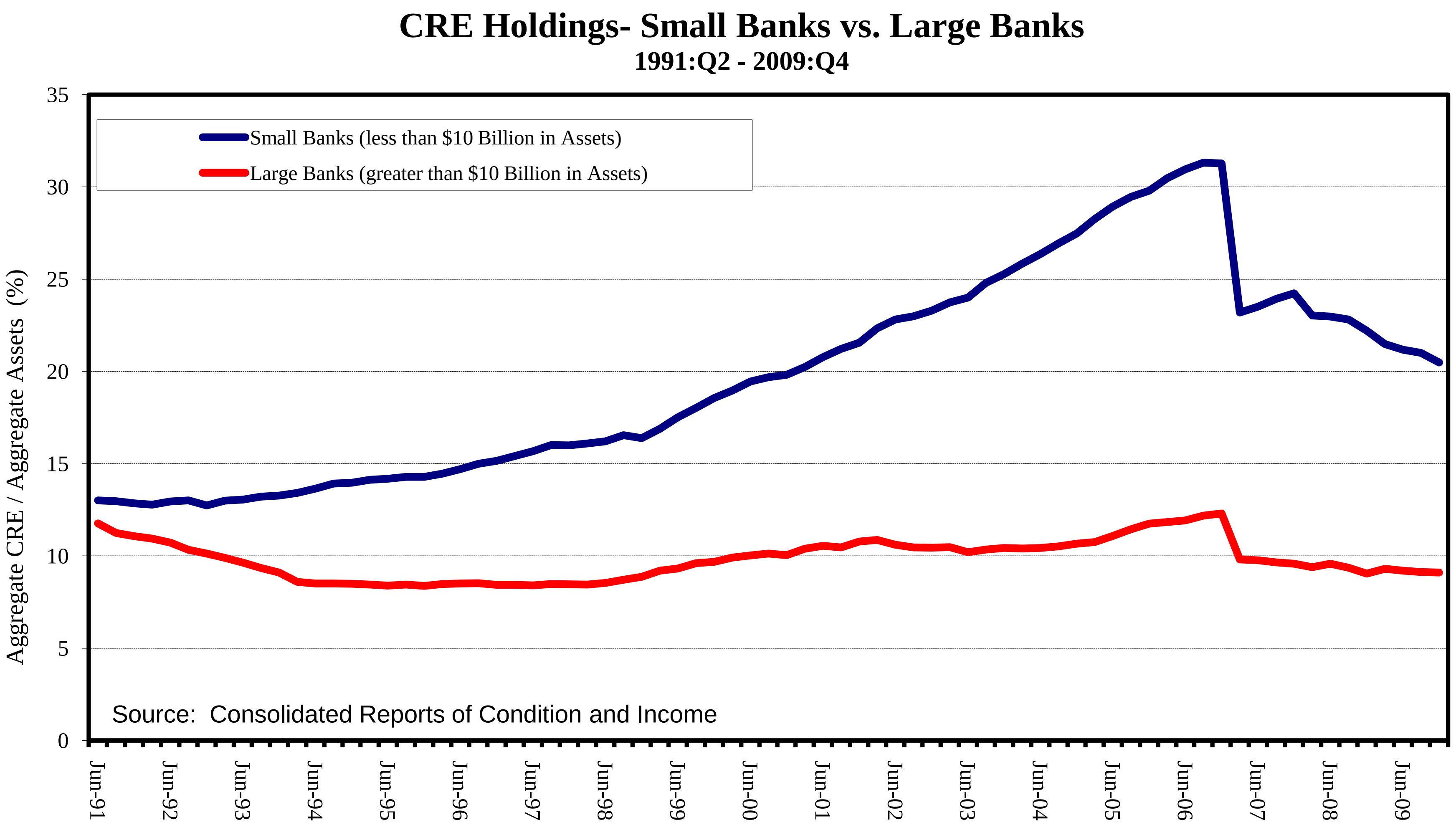
- Theory (sorry) and evidence

Commercial Bank CRE Concentrations



Trimmed mean ratios as percent of total capital, commercial banks only. * Other CRE excludes loans on owner occupied properties, estimated prior to 2008 . Estimated amounts amount assumed at a constant 57% of total nonfarm nonresidential loans.

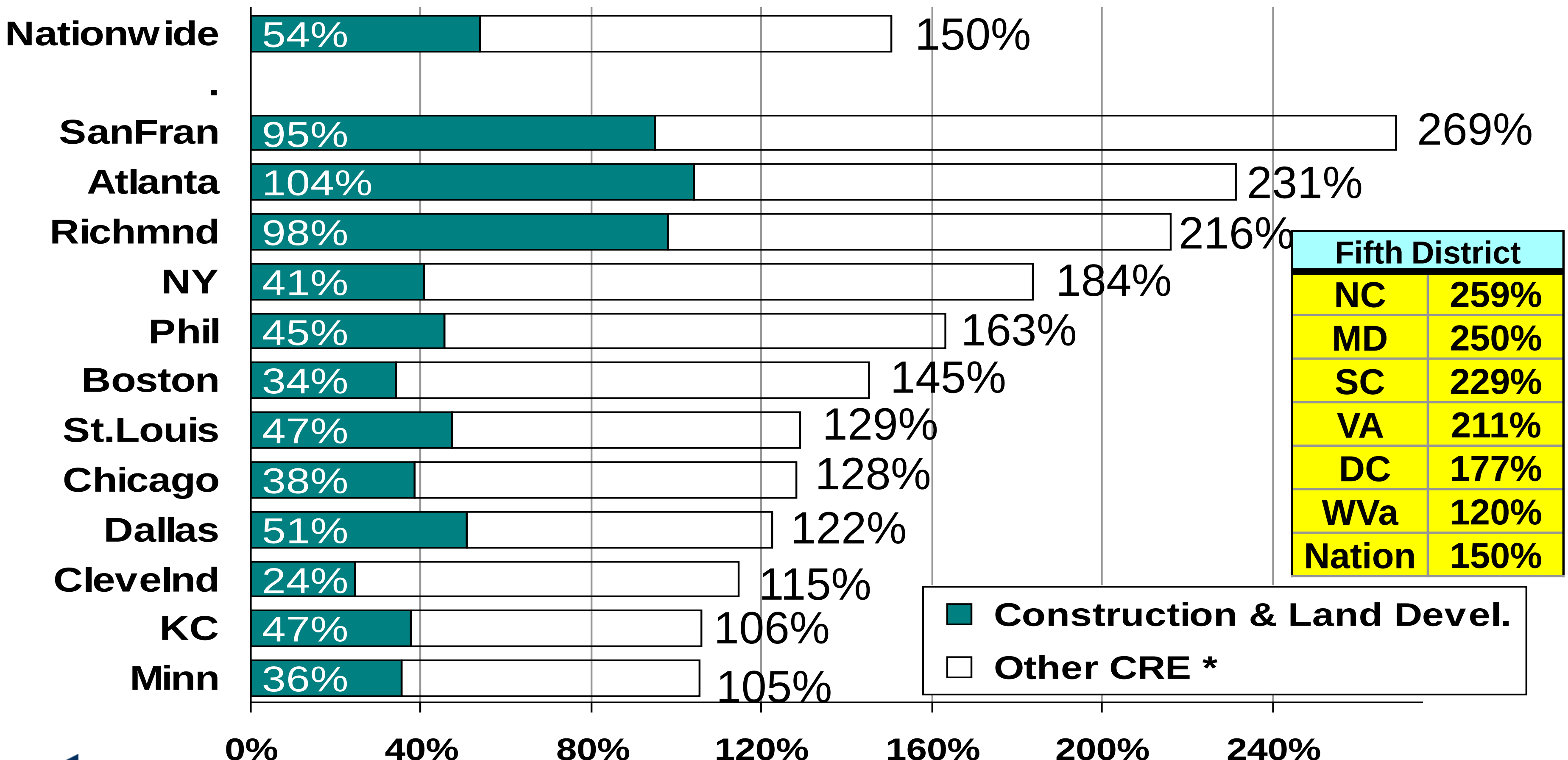
Smaller Banks More Heavily Concentrated in CRE



Note: The CRE concentration definition changed in 2007 to exclude owner-occupied non-farm, non-residential loans. That change explains the sharp 2007 decline for both groups.

Fifth District Heavily Concentrated in CRE

CRE Loans/Total Capital



Fifth District	
NC	259%
MD	250%
SC	229%
VA	211%
DC	177%
WVa	120%
Nation	150%

Trimmed mean ratios as percent of total capital, commercial banks only.

* Excludes owner-occupied nonfarm nonresidential-secured loans.

Source: F.R. System Real Estate InfoWeb

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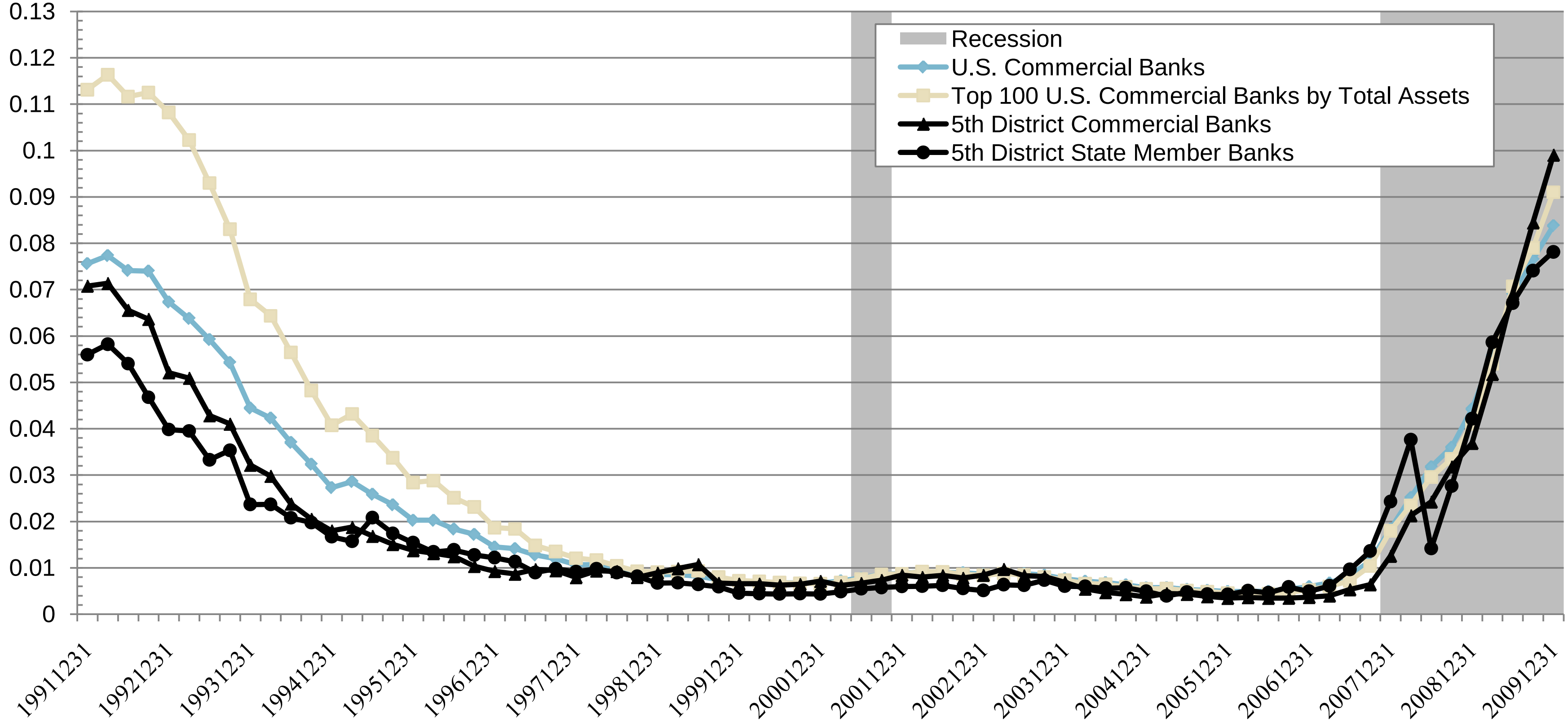
Overall CRE Credit Quality Deteriorating

Non-Performing Commercial Real Estate Loans

Non-Performing CRE as a % of Total CRE (Aggregate)

1991:Q4 - 2009:Q4



Note: Non-performing loans include 90+ day past due loans and non-accrual loans.

Source: Consolidated Reports of Condition and Income

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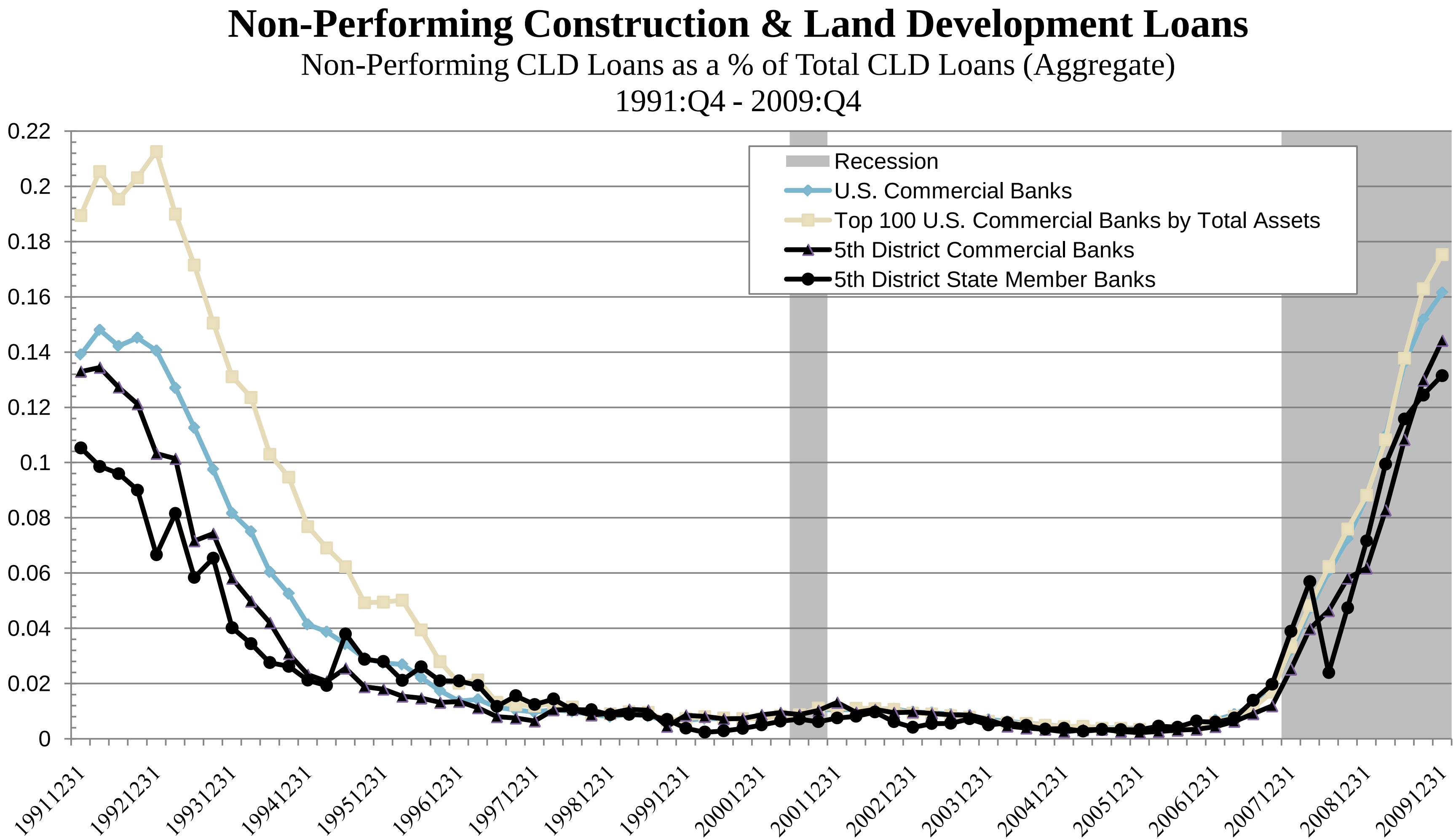
Housing Market Woes Hit CLD Loans



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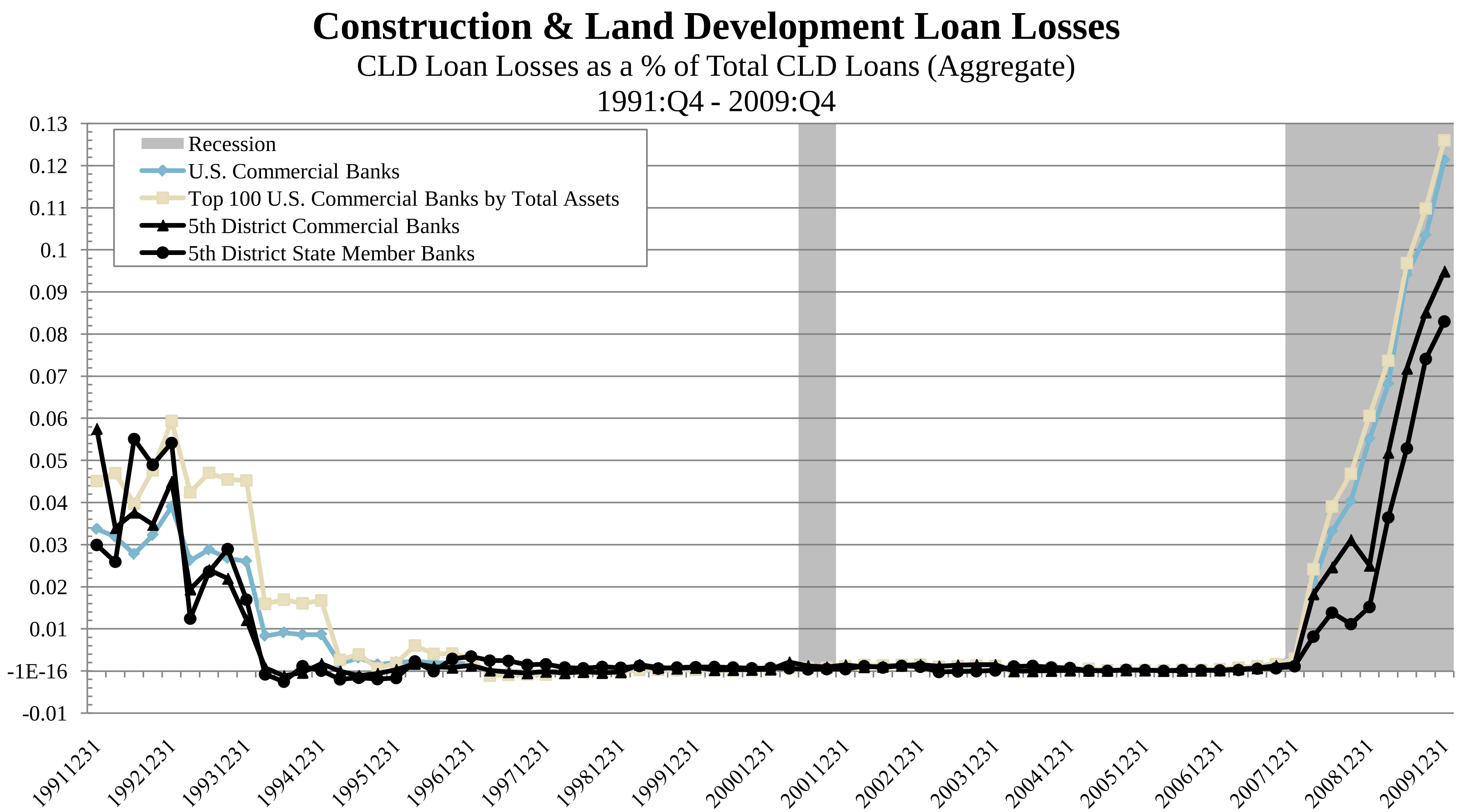
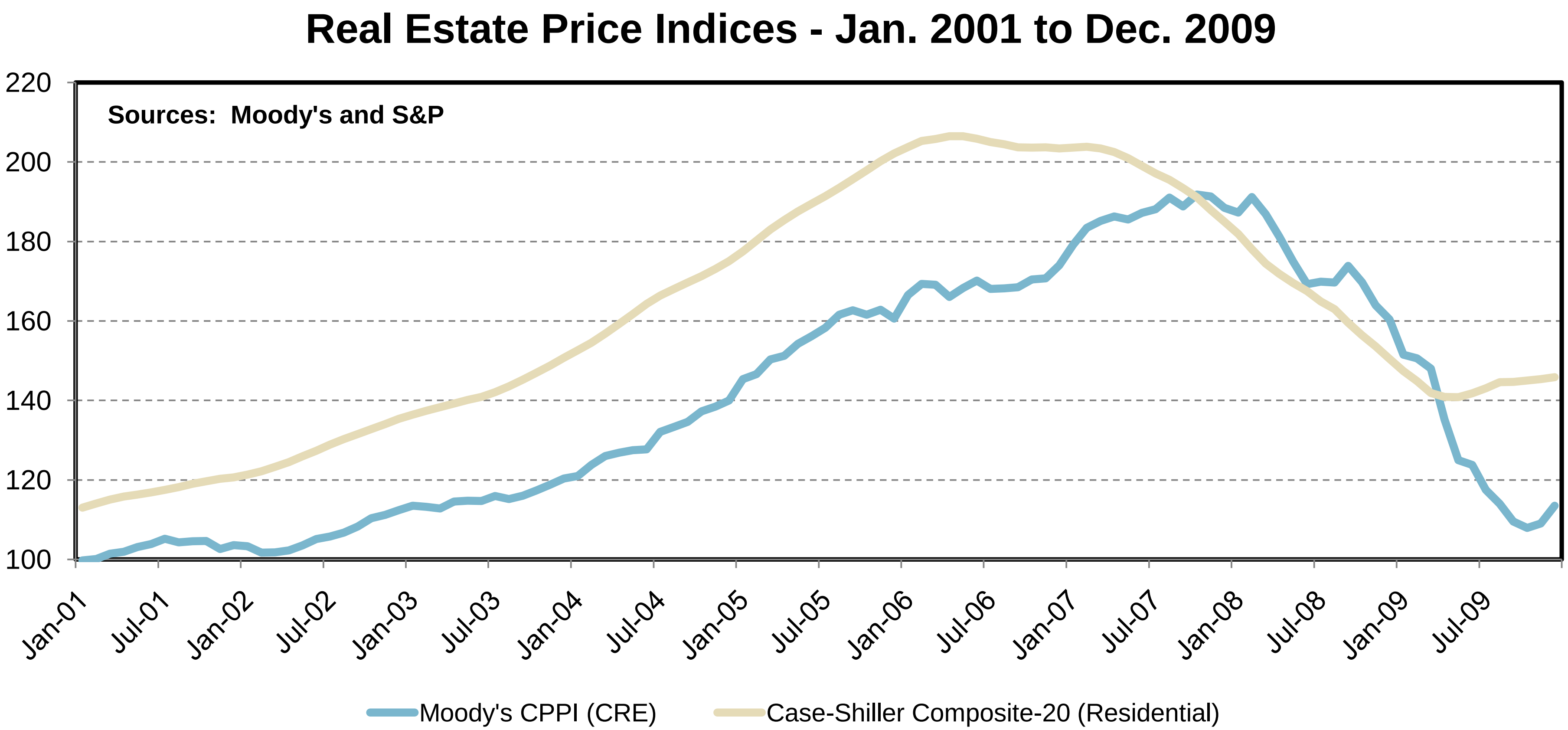


Note: Loan losses defined as charge-offs minus recoveries.
Source: Consolidated Reports of Condition and Income

CRE Property Values Mimic Residential

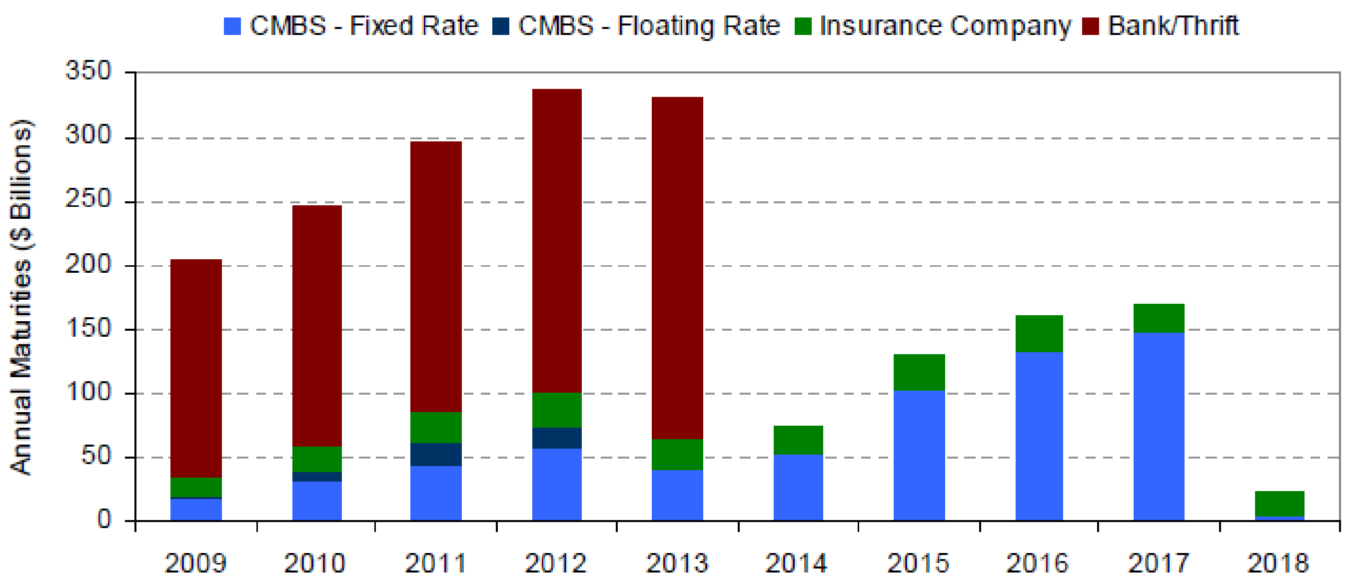
- Down almost 44% from 10/07 to 10/09



Who Holds the Maturing Loans?

- Estimated $1.4T will mature through 2013. $1.06T in banks.

Figure 4: Estimated maturity profile of commercial mortgages in CMBS, bank and life company portfolios



Source: Deutsche Bank, Intex, Trepp, Mortgage Bankers Association, Federal Reserve

What’s a Bank To Do?

- Three options
  - Refinance
    - Which requires the borrower to inject additional equity
  - Foreclose and write it off
    - Which puts the bank in the property management business
    - And hurts the bank’s capital
  - Extend or modify
    - Which is a mixed bag. Extension looks a lot like forbearance.
    - On the other hand, a new supervisory statement is out that gives regulators some guidance about CRE workouts
      - “Restructured loans to creditworthy borrowers will not be subject to adverse classification solely because the value of the underlying collateral declined”

The Potential for a “Systemic” CRE Problem?

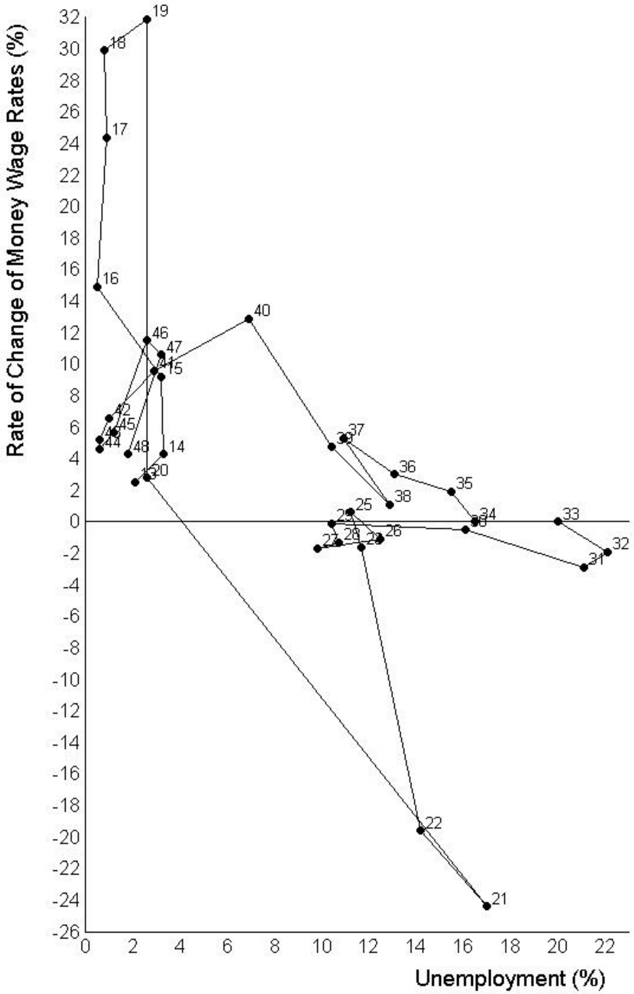
- The size of the market is smaller than housing
- Large banks’ have less relative exposure to CRE
- The collateral held in large banks’ CMBS portfolios is performing worse, on average
- What’s likely?
  - Higher risk premia increase the cost of finance for CRE projects.
  - Local market effects resulting from small/midsize banks’ losses on their portfolios of CRE/CLD loans

Central Bank Independence is a “Nobel” Idea

- Some of the big ideas in economics over the past 50 years lead me to the conclusion that independent central banks are a good thing
  - It’s a very mainstream view among economists
- Let’s see if we can cover a half century in 15 minutes

Is There an Output-Inflation Tradeoff?

- Many think so. Dates back to AW Phillips, who noticed a negative relationship between wage growth and unemployment
- Here's the original curve, which plots data for the UK
- The idea? Higher wage growth makes labor pricier, reduces employment

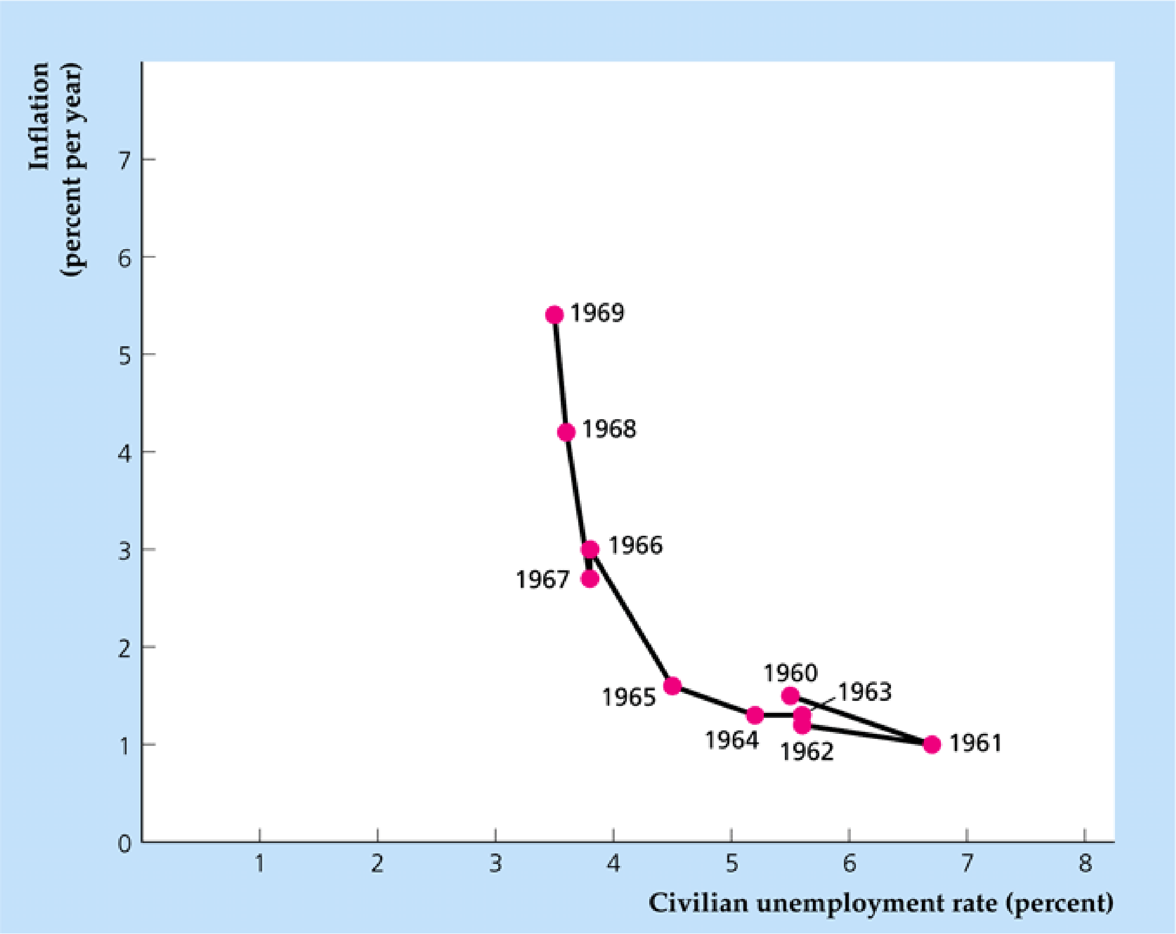


The Golden Age of the "Phillips Curve"

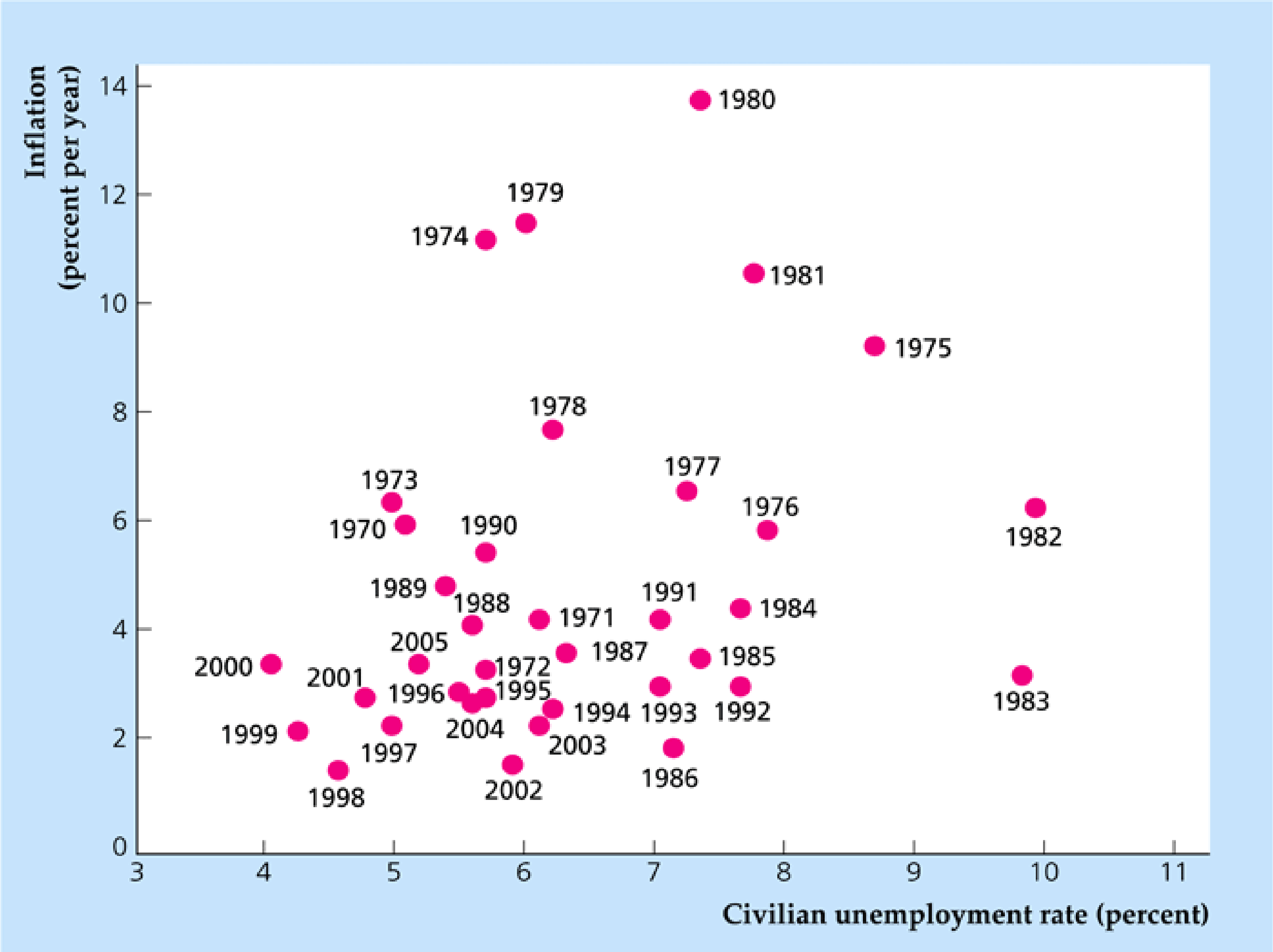
- Nobel Prize winners Paul Samuelson and Robert Solow extended the work to inflation (instead of wage growth) and unemployment
- They pushed the idea that the "Phillips Curve" represented a menu of options for policy…pick the point you like
- The idea was governments could use monetary or fiscal policy to reduce unemployment
- Yes, inflation would rise, but policy makers could decide on the desired mix
  - It was a controversial idea, even at the time

The US Phillips Curve of the 1960's

- Looked like the US was on a stable Phillips Curve



Whoops…



Inflation
(percent per year)
14
12
10
8
6
4
2
0
3
4
5
6
7
8
9
10
11
Civilian unemployment rate (percent)
1980
1979
1974
1981
1975
1978
1977
1973
1976
1970
1990
1982
1989
1988
1991
1984
1971
2005
1987
2000
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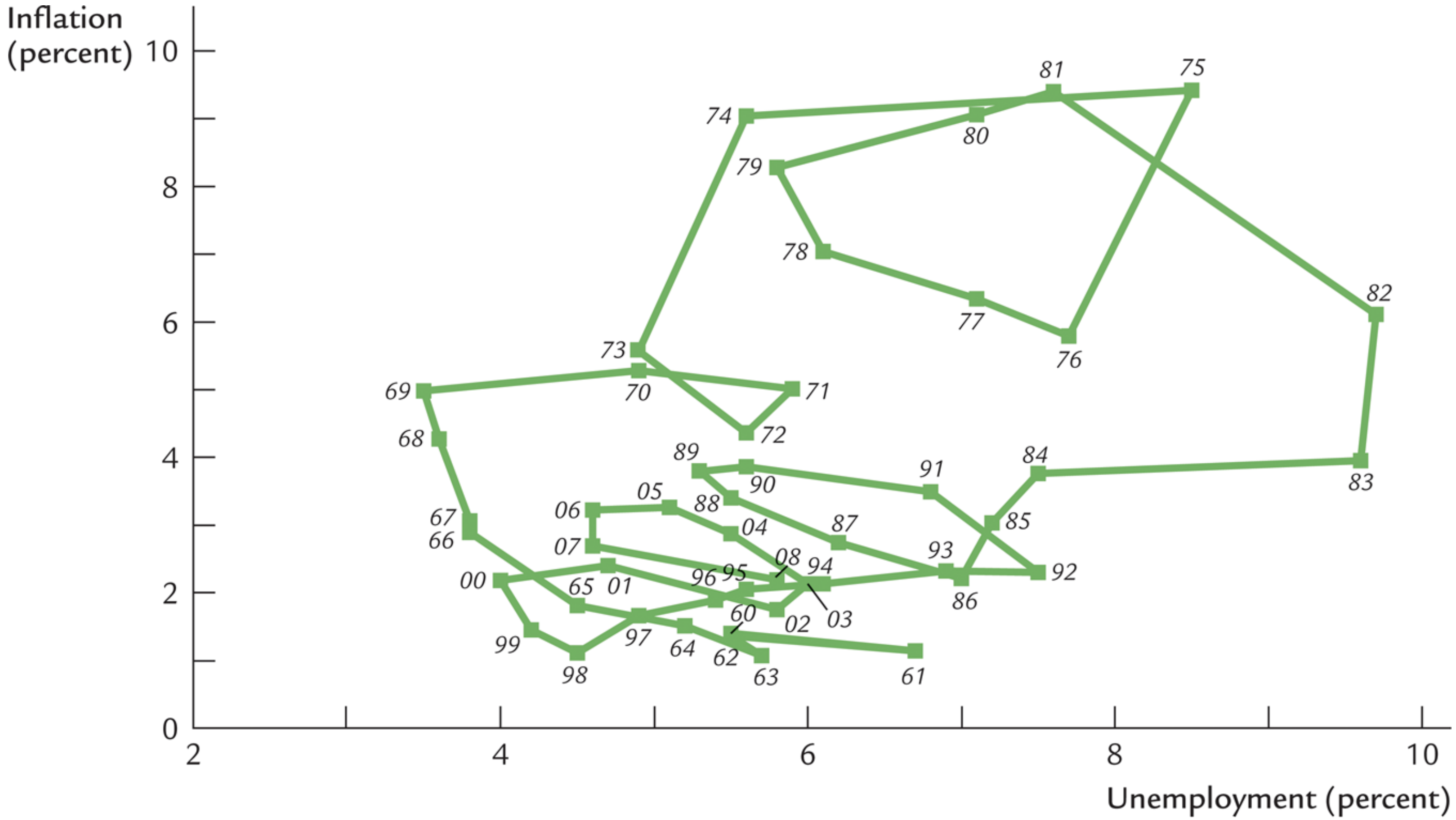
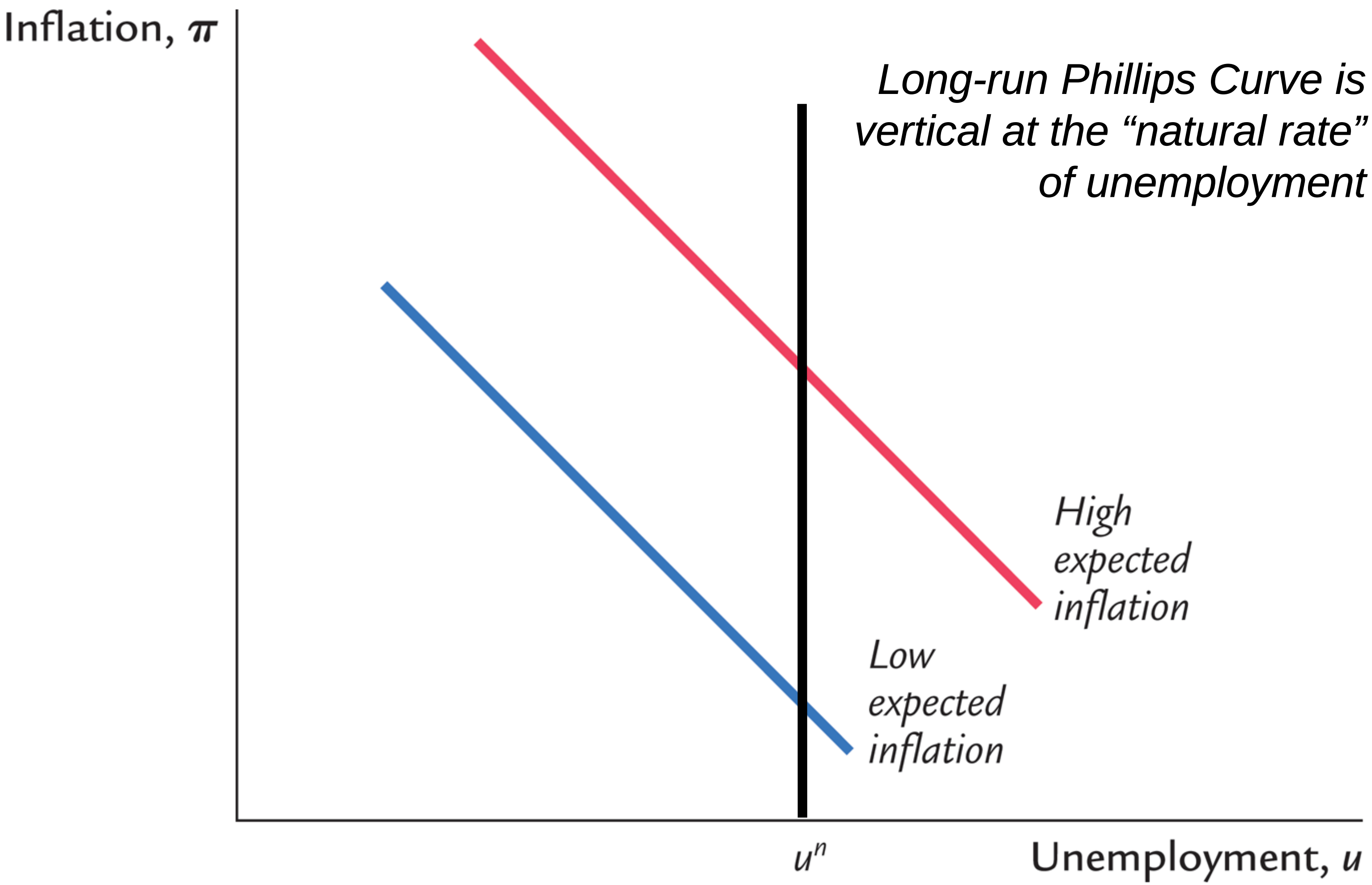
Not Stable, Not a Menu, You Can't Pick



The Breakdown was not a Surprise to Everyone

- Nobel Prize winner Milton Friedman and Edmund Phelps anticipated the breakdown in the Phillips Curve relationship
- Said three things
  - The negative relationship holds only if people make mistakes about the expected inflation rate
  - Since mistakes are costly, they'll figure out government policies designed to exploit the Phillips curve
  - And the economy will return to a "natural rate" of unemployment once they figure things out
- It's called an "Expectations Augmented Phillips Curve"

Higher Expected Inflation Shifts the Curve Up:
no <u>long-run</u> tradeoff (you just get more inflation)



The Problem is the Possible Short-run Tradeoff

- And that's where central bank independence becomes very important
- If people think that the government will try to exploit the short-run tradeoff
  - Expected inflation rises, the Phillips Curve shifts to the right, and the long-run inflation rate rises
    - Trying to exploit the relationship changes the relationship (which is yet another Nobel Prize winner's idea…Robert Lucas)

- Governments that control monetary policy will be tempted to exploit the relationship, even if they promise that they won't
  - And people know it, so they would expect higher inflation
- The idea is called the "time consistency problem" and was developed by Nobel Prize winners Finn Kydland and Ed Prescott
  - "I won't take you to Disneyland if you're room isn't kept clean" isn't a credible promise
  - "If you expect low inflation, I won't increase the money supply" isn't either

How do You Beat the Time Consistency Problem?

- Establish a central bank that is insulated from politics
- Give the central bank a clear mandate for price stability, and hold it accountable for its performance
- Appoint central bankers who believe the costs of inflation are relatively high, and give them relatively long terms
- Have the central bank develop a reputation for maintaining low inflation rates over time
- Many central banks have one or more of these features, more or less

What's the Evidence?

- Here's a widely cited study with easy to understand results from the *Journal of Money, Credit, and Banking*

ALBERTO ALESINA AND LAWRENCE H. SUMMERS : 155

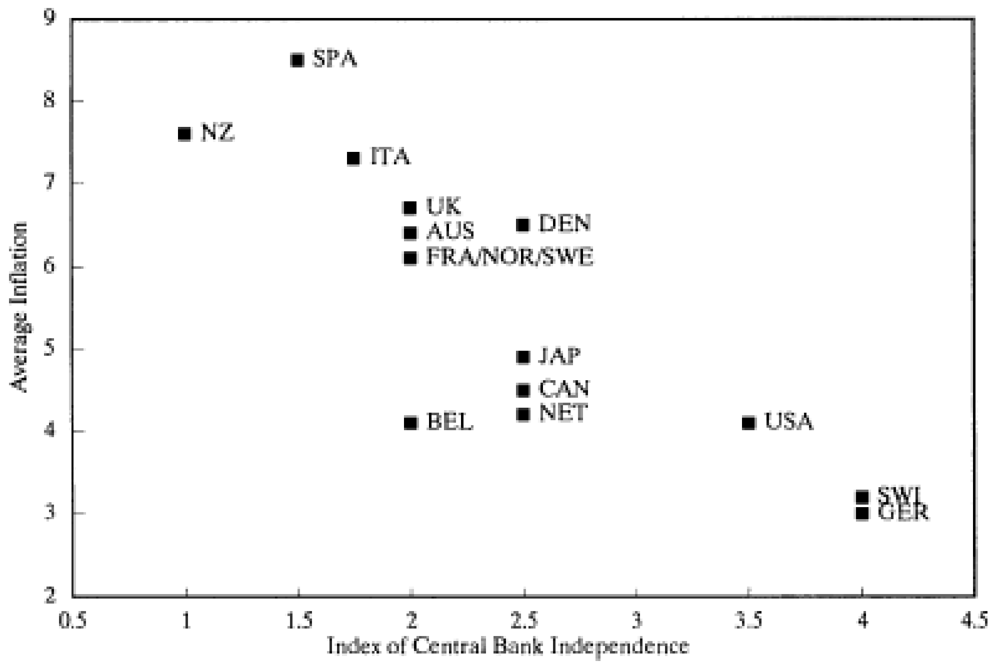


FIG. 1a. Average Inflation

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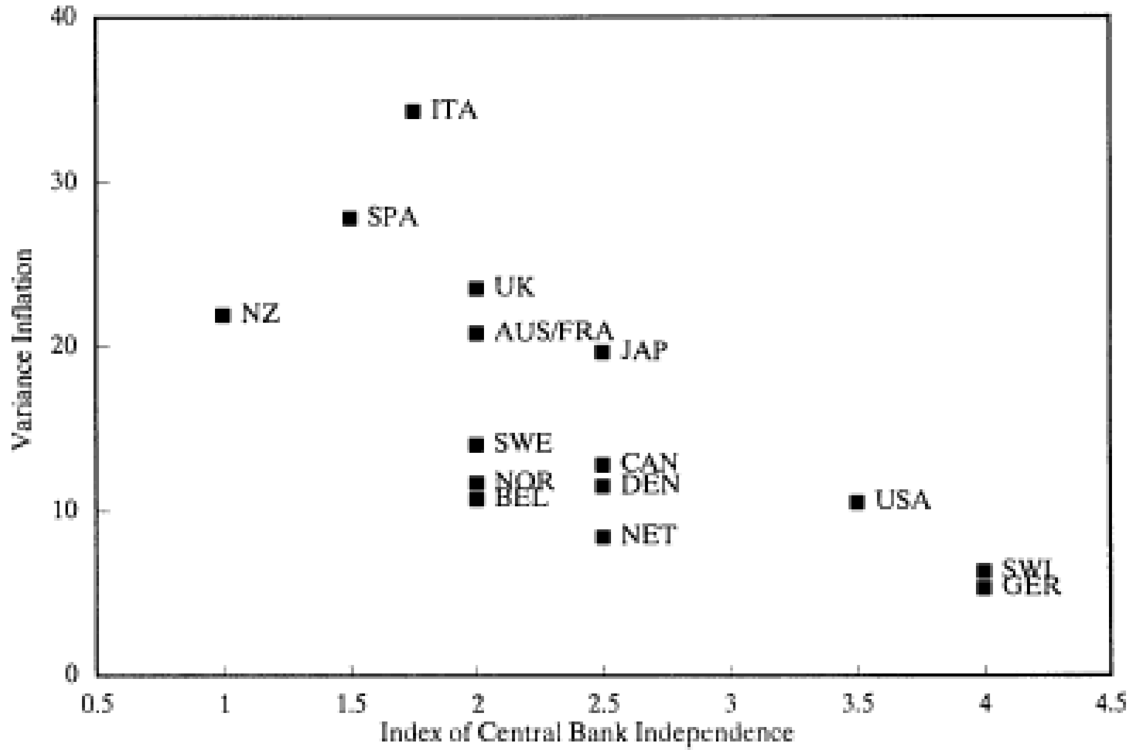

FIG. 1b. Variance Inflation

The punch line: Theory predicts independent banks can make more credible promises to keep inflation low and stable. The evidence suggests they make good on that promise.

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